



Patitioner's Docket No. CM-052B

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Victor W. THOMAS, Sr., et al.  
Serial No.: 10/619,150  
Filed: July 14, 2003  
For: FLOOR CLEANING APPARATUS

I, Kristin L. Shimeck, hereby certify that this correspondence is being deposited with the US Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date of my signature.

Kristin L. Shimeck  
Signature  
14 October 2003  
Date of Signature

8310 16th Street  
P.O. Box 902  
Sturtevant, WI 53177-0902

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. §1.56, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed documents accompany this communication.

Please charge any fees required for consideration of this information disclosure statement to Deposit Account No. 50-0231.

Respectfully Submitted,

By:

Warren R. Bovee

Warren R. Bovee

Registration No. 26,434

Phone: (262) 631-4196  
Attachments

Form PTO-1449  
(MODIFIED)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

NEW ATTY. DOCKET NO.  
CM-052B

SERIAL NO.  
10/619,150

APPLICANT

Victor W. THOMAS, Sr., et al.

FILING DATE

July 14, 2003

GROUP ART UNIT

**INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
						YES	NO
	112667	5/1/89	CN	A47L		X	
	123375	11/21/89	CN	A47L		X	
	162083	7/1/91	CN	Ar7L11	16	X	

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)


EXAMINER

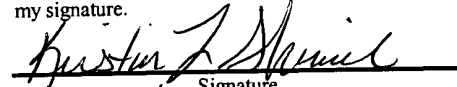
DATE CONSIDERED

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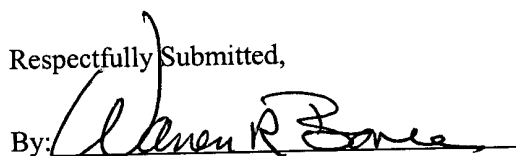
In compliance with the duty of disclosure under 37 C.F.R. §1.56, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of all listed documents were produced in the parent application (Application Serial No. 09/588,414, filed June 6, 2000), and are therefore not included.

However, Applicants realized that U.S. Patent No. 5,353,138, was incorrectly cited in the parent case by typographical error. A copy of the correct reference (U.S. Patent 5,454,138) was submitted in the prior case, however, for the Examiner's convenience, a copy is included herewith. The attached Form 1449 has been corrected to remedy the typographical error.

Please charge any fees required for consideration of this information disclosure statement to Deposit Account No. 50-0231.

Respectfully Submitted,

By:

  
Warren R. Bovee  
Registration No. 26,434

Phone: (262) 631-4196  
Attachments

# INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)

CM-052 B

Application Number

10/619,150

Applicant(s)

Thomas et al.

Filing Date

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Group Art Unit

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		901,978	10-27-1908	Mally et al.			
		3,197,798	08-03-1965	Brown et al.			
		4,380,844	04-26-1983	Waldhauser et al.			
		5,454,138	10-3-1995	Mondigo et al.			
		5,940,928	08-24-1999	Erko			

## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)


EXAMINER

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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,204,280	9/7/65	C. Cambell			
	3,742,546	7/3/73	Crener et al.			
	3,795,933	3/12/74	Seufert			
	3,921,244	11/25/75	Warren et al.			
	3,931,659	1/13/76	Pfefferkorn et al.			
	3,942,215	3/9/76	Olds			
	3,952,361	4/27/76	Wilkins			
	3,972,088	8/3/76	Thomas			
	4,094,034	6/13/78	Wilkins et al.			
	4,096,084	6/20/78	Thomsen et al.			
	4,114,711	9/19/78	Wilkins			

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	0569984A1	18.11.93	European Patent Office				
	EP0951858A1	27.10.99	European Patent Office				
	W0 95/09557	13.4.95	WIPO				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Brooks, Rodney A., "The Behavior Language; User's Guide", Massachusetts Institute of Technology Artificial Intelligence Laboratory, page: 1-34, April, 1990.
	Brooks, Rodney A., "Integrated Systems Based on Behaviors", Massachusetts Institute of Technology Artificial Labratory, page: 1-5.

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,118,819	10/10/78	Gordon et al.			
	4,122,576	10/31/78	Bevington et al.			
	4,150,456	4/24/79	Alvarez et al.			
	4,214,337	7/29/80	Nise et al.			
	4,237,571	12/9/80	Nelson			
	4,295,243	10/20/81	King			
	4,322,920	4/6/82	Wells			
	4,393,534	7/19/83	Lee et al.			
	4,492,002	1/8/85	Waldhauser et al.			
	4,577,364	3/25/86	Demetriades			
	4,506,405	3/26/85	Block			

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

		Evans, John M., "HelpMate: a service robot success story", Service Robot: An International Journal, Vol. 1, No. 1, MCB University Press, pages: 19-21, (1995).
		Hofner, Christian and Gunther Schmidt, "Path Planning And Guidance Techniques For An Autonomous Mobile Cleaning Robot", Department for Automatic Control Engineering (LSR) Technische Universitat Munchen, Germany, pages: 610-617.

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,633,541	1/6/87	Block			
	4,783,872	11/15/88	Burhoe			
	4,790,402	12/13/88	Field et al.			
	4,819,676	4/11/89	Blehert et al.			
	4,825,500	5/2/89	Basham et al.			
	4,910,824	3/27/90	Nagayama et al.			
	4,940,082	7/10/90	Roden			
	4,958,068	9/18/90	Pong et al.			
	5,020,620	6/4/91	Field			
	5,032,775	7/16/91	Mizuno et al.			
	5,064,010	11/12/91	Masbruch et al.			

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						YES	NO

## **OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	Jenkins, Frank, "Practical Requirements for a Domestic Vacuum-Cleaning Robot", JRL Consulting, P.O. Box 1289, Menlo Park, CA 94026, pages: 85-90.
	Leng, Goh Wee, "An Expert Autonomous Vacuum Cleaner Robot", School of Electrical & Electronic Engineering, Nanyang Technological Institute, Singapore, pages: 598-604, 1988.

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	APPLICANT(S) Thomas et al.	
	FILING DATE July 14, 2003	GROUP

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,093,955	3/10/92	Blehert et al.			
	5,148,573	9/22/92	Killian et al.			
	5,212,848	5/25/93	Geyer			
	5,253,384	10/19/93	Joines et al.			
	5,254,146	10/19/93	Beaufoy			
	5,287,581	2/22/94	Lo			
	5,289,605	3/1/94	Armbruster			
	5,293,955	3/15/94	Lee			
	5,307,273	4/26/94	Oh et al.			
	5,371,912	12/13/94	Hall			
	5,402,051	3/28/95	Fujiwara et al.			

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						YES	NO

**OTHER DOCUMENTS** *(Including Author, Title, Date, Pertinent Pages, Etc.)*

		Schofield, Monica, "Cleaning Robots", Service Robot: An International Journal, Vol. 1, No. 3, MCB University Press, pages: 11-16, (1995).
		Ward, Charles W., "Sweeping Revelations From A First Time Robot-User", Commercial Services of Virginia, Inc., pages: 14 -1 to 14-6.

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,402,559	4/4/95	Allison et al.			
	5,440,216	8/8/95	Kim			
	5,467,500	11/21/95	O'Hara et al.			
	5,534,762	7/9/96	Kim			
	5,548,511	8/20/96	Bancroft			
	5,566,422	10/22/96	Geyer			
	5,611,105	3/18/97	Blehert et al.			
	5,613,261	3/25/97	Kawakami et al.			
	5,621,291	4/15/97	Lee			
	5,623,743	4/29/97	Burgoon et al.			
	5,636,402	6/10/97	Kubo et al.			

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						YES	NO

## **OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

		Yaguchi, Hiroshi, "Robot introduction to cleaning work in the East Japan Railway Company", Advanced Robotics, Vol. 10 No.4, VSP and Robotics Society of Japan, pages: 403-414, (1996).

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	5,646,494	7/8/97	Han			
	5,742,975	4/28/98	Knowlton et al.			
	5,815,880	10/6/98	Nakanishi			
	6,023,813	2/15/00	Thatcher et al.			
	4,059,863	11/29/77	Deuchar et al.			

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## U.S. PATENT DOCUMENTS

[illegible]

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REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	WO 93/18699	30-09-1993	WIPO			✓	
	WO 01/60227 A1	23-08-2001	WIPO			✓	

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Form PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		NEW ATTY. DOCKET NO. CM-052B		SERIAL NO. 10/619,150	
<b>INFORMATION DISCLOSURE CITATION</b>  <i>(Use several sheets if necessary)</i>				APPLICANT Victor W. THOMAS, Sr., et al.			
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<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
		6,357,070	3/19/02	Venard, et al.			
<b>FOREIGN PATENT DOCUMENTS</b>							
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES    NO
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